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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,310	09/12/2003	Jon C. Marine	MAT 3D9A	7828
23581	7590	04/22/2005	EXAMINER	
KOLISCH HARTWELL, P.C. 520 S.W. YAMHILL STREET SUITE 200 PORTLAND, OR 97204			ABDELWAHED, ALI F	
			ART UNIT	PAPER NUMBER
			3722	

DATE MAILED: 04/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/661,310

Applicant(s)

MARINE ET AL.

Examiner

Ali Abdelwahed

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2005.  
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 34-51 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☒ Claim(s) 2-13 and 34-48 is/are allowed.  
6) ☒ Claim(s) 1, 14, 15 and 49-51 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1 and 14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Specifically, the limitations regarding the engaged configuration defining a first plane of interaction and at least one of the non-rotating configurations defining a second plane of interaction that is different from the first plane of interaction are not clearly described anywhere in the specification.

Accordingly, the subsequent prior art rejection to claims 1, 14, 15, and 49-51 herein below has been made and applied to the aforementioned claims as best understood is as follows:

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1, 14, 15, and 49-51 are rejected under 35 U.S.C. 102(a) as being anticipated by PCT- WO 01/49383 A1 to Chung.

Chung discloses, with regards to claims 14 and 15, twin inter-engaged, motion coupled, substantially parallel axis rotors (56, 58) operatively mounted for juxtaposed relative intermittent rotation (see figs. 3A, 3B, and pgs. 5, 6), each rotor including: a toothed region (65A, and toothed region of rotor 56 can best be seen in fig. 3B) which lies along an arc that is less than a full circle (see figs. 3A, 3B); and a cam region (65B, and cam region of rotor 56 can best be seen in fig. 3B, which is opposite it's toothed region) including a portion of which lies substantially outside that arc toothed region (see figs. 3A, 3B), the rotors being operatively positioned relative to one another in a manner which enables two different characters of inter-engaged relative rotating motion (see pgs. 5 and 6, lines 30-37 and 1-7, respectively), one of the characters involving tooth-region to tooth-region driving inter-engagement in a first plane of interaction, wherein the two rotors counter rotate relative to one another, with one rotor driving the other rotor, and the other character involving sliding surface to sliding surface, non-driving inter-engagement in a second plane of interaction different from the first plane of interaction, wherein the one rotor rotates and the other rotor is stationary (see figs. 3A, 3B, and respective portions of the specification), the first character of inter-engaged relative rotation motion occurring at a predefined sweep of angular relation between the twin rotors and the second character of inter-engaged relative rotation motion occurring at two predefined angular relations between the twin rotors positioned on either side of

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the sweep that defines the first character of inter-engaged relative rotation (see figs. 2A-3C, and respective portions of the specification); the toothed regions include portions extending across a common plane which is spaced from and generally normal to the axes (see figs. 3A, 3B).

Regarding claims 1 and 49-51, a drive gear (56) adapted to receive rotational input (receives rotational input from the second motor, which is not shown in the figures), the drive gear having a drive cam structure (defined by the arcuate upstanding wall best seen in fig. 3B) and a set of drive teeth (defined by the teeth opposite upstanding wall best seen in fig. 3B), the drive cam structure having a bearing surface of a generally inwardly facing curvature (see fig. 3B) and including a cam recess region (defined by the area recessed from the outer edge of the drive gear 56 that intersects with the defined drive cam structure) that includes a bearing surface (the outer arcuate surface of the defined drive cam structure), the cam recess region having a generally outwardly facing curvature (see fig. 3B); and a driven gear (58) having a driven cam structure (65) and a set of driven teeth (65A), the driven cam structure including a cam lobe portion (65B) that includes a bearing surface configured to engage the cam recess bearing surface upon engagement of the drive teeth and the driven teeth (see fig. 3B); wherein the driven gear and the drive gear are operatively associated for selective transmission of the rotational input; wherein the driven gear has an engaged orientation in a first plane of interaction, in which the drive teeth engage the driven teeth to cause the driven gear to counter rotate relative to the drive gear, and further wherein the driven gear has at least two non-rotating orientations wherein at least one of the two

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non-rotating orientations defines a second plane of interaction that is different from the first plane of interaction, in which the drive cam structure and the driven cam structure are adapted to prevent the driven gear from rotating (see pgs. 5 and 6, lines 30-37 and 1-7, respectively); wherein the cam recess bearing surface is adjacent the drive teeth, and the cam lobe bearing surface is adjacent the driven teeth (see fig. 3B); wherein the cam recess region includes alignment guide surfaces adapted to guide the cam lobe bearing surface into the cam recess and align the drive teeth and the driven teeth for engagement (see figs. 3A, 3B).

### ***Response to Arguments***

Applicant's arguments with respect to claims 1, 14, 15, and 49-51 have been considered but are moot in view of the new ground(s) of rejection.

### ***Allowable Subject Matter***

Claims 2-13 and 34-48 are allowed.

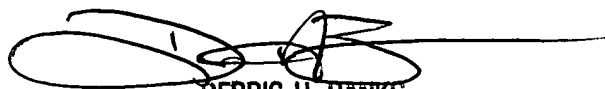
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ali Abdelwahed whose telephone number is (571) 272-4417. The examiner can normally be reached Monday through Friday from 10:00 A.M. to 6:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris Banks can be reached on (571) 272-4419.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the examiner or the examiner's supervisor.

AA  
04/14/2005

  
DERRIS H. BANKS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700